10 simple rules for supporting a temporary online pivot in higher education

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Author note: This is a pre-submission preprint and we welcome and encourage feedback on this manuscript. If you have any comments, please send them to the corresponding author by 11th May. Please be aware that we consider this manuscript to be a final draft rather than a finished product and there are likely to be substantial revisions to this paper before it is published.

Abstract

As continued COVID-19 disruption looks likely across the world, perhaps until 2021, contingency plans are evolving in case of further disruption in the 2020-2021 academic year. This includes delivering face-to-face programmes fully-online for at least part of the upcoming academic year for new and continuing cohorts This temporary pivot will necessitate distance teaching and learning across almost every conceivable pedagogy, from fundamental degrees to professionally accredited ones. Each institution, programme, and course will have its own myriad of individualised needs , however, there is a common question that unites us all: how do we provide teaching and assessment to students in a manner that is accessible, fair, equitable, and provides the best learning whilst acknowledging the temporary nature of the Pivot? No 'one size fits all' solution exists and many of the choices that need to be made will be far from simple, however, this paper provides a starting point and basic principles to facilitate discussions taking place around the globe by balancing what we know from the pedagogy of online learning with the practicalities imposed by this crisis.

Introduction

SARS-CoV-2, more commonly known as COVID-19, has acted as a severe disruptor for communities across the globe, not least for educational institutions. Internationally, many educational institutions have voluntarily or compulsorily closed their campuses for the final part of the 2019-2020 academic year and to continue educational delivery, we have seen a 'pivot' to online teaching where traditional on-campus programmes are delivering teaching at a distance and are preparing, many for the first time, for online assessments. As continued COVID-19 disruption looks likely across the world (Peto et al, 2020, Horton, 2020), perhaps until 2021, contingency plans are being drawn-up in case of further disruption in the 2020-2021. This includes delivering face-to-face programmes fully-online for both new and continuing cohorts of students. This temporary pivot will necessitate distance teaching and learning across almost every conceivable pedagogy, from fundamental degrees to professionally accredited ones. Each institution, programme, and course will have its own myriad of individual needs, however, there is a common question that unites us all: how do we provide teaching and assessment to students in a manner that is accessible, fair, equitable, and provides the best learning whilst acknowledging the temporary nature of the Pivot? No 'one size fits all' solution exists and many of the choices that need to be made will be far from simple, however, this paper identifies 10 guiding principles that balance pedagogical best practice of online learning with pragmatism necessary during this crisis.

Rule 1: A temporary online pivot is not the same as emergency remote teaching or a specialised online course

A temporary pivot needs to be selective in what it incorporates from both emergency remote teaching or specialised online courses. Additionally, higher education management and policy makers must recognise the unique and fundamentally imperfect nature of this work and treat course evaluations, student satisfaction, and teaching quality assessments with extreme caution during this period. There is a fundamental and important distinction between this pivot and what we traditionally consider online distance learning. For a proportion of the education community, distance learning is unfamiliar, or worse, is perceived as a destabilising threat to the education sector. The Manifesto for Online Teaching (Bayne & Ross, 2016) highlights some of the commonalities of online courses, be they open and free or fee-heavy and institutionally accredited. They are commonly developed with socio-constructivist pedagogies at their core (i.e., that knowledge is constructed through interaction with others as opposed to copied from a text or teacher), with the common mantra "distance is a positive principle not a deficit". Accordingly, there is a strong focus on the online culture (Watson, Kim, & Watson, 2016), with high

production standards and the desire to widen access to education to a more heterogeneous studentship (Lane, Caird, & Weller, 2014). Many higher education institutions involved in online distance learning have engaged with this at postgraduate levels, with only a few (with the exception of the Open University) entering into undergraduate ODL provision. While many traditional on-campus higher education courses may share these principles, few will have been designed from the ground up to embody them, and some educators see online resources as devaluing the classroom space (Anderson & Mcgreal, 2012).

There is also a further distinction to be made between the immediate reaction to the COVID-19 disruption, described as emergency remote teaching (Hodges et al., 2020) , and longer-term, but crucially still temporary, plans to continue teaching online. Programmes of study with large practical components may never have voluntarily chosen to teach online, and now need to consider what can and must be taught remotely. Those programmes that adhere to professional standards, such as medical or engineering degrees, may need to consider how they can meet accreditation standards. For example, Day One Competencies for veterinary degrees need to be met to allow for registration with the Royal College of Veterinary Surgeons, and the General Medical Council requires all providers to meet the standards set out in the Promoting Excellence framework. Liaising with these bodies is important, as some aspects may be relaxed, e.g. the RCVS will allow for a small shortfall in practical experience in 2020 graduates. Contingency plans to deliver part of the 2020/2021 academic year fully-online must be more robust than emergency remote teaching, yet mindful that for many this is not the beginning of a brave new era, but rather a challenge that must be met to balance workload, pedagogy, and practicalities until life can return to (a new) "normal".

Rule 2: Provide asynchronous content

Unless interaction is necessary (see Rule 3), content that is recorded and provided asynchronously will allow students to engage with their studies flexibly. The pivot to online will hit disadvantaged students hardest. Barriers to education that may be further compounded for disadvantaged students during the pivot include a lack of access to quiet working environments, reliable access to technology, and potentially under-developed skills necessary for independent online study (Gorard et al., 2006, Gorard & Selwyn, 1999). This will be even further exacerbated for new first year students who have not had the opportunity to transition into "normal" university life as well as those with caring responsibilities, mature students returning to study, and the many students who may be in different time zones across the world. It is therefore imperative that flexibility is built into the pivot and academics must accept that we will have less control over where and when our students engage with our courses. Access to internet and digital resources will not be equal (Barraket & Scott, 2001, Devlin & McKay, 2019).

Additionally, just as traditional on-campus teaching has started a gradual shift away from the notion of a prototypical "implied student" (Ulriksen, 2009), and is being encouraged to embrace a studentship that is best supported by recognising its diverse learning needs (Starr-Glass, 2020), so the (temporary) online student is best supported with multiple opportunities and methods of engagement with core material at a flexible pace. The online learning environment is often a better environment for students that may not receive the necessary accommodations or flexibility they require to succeed in on-campus programmes (Newell & Debenham, 2009; Satterfield et al., 2015). Similarly, online platforms provide an opportunity to reconceive and potentially optimise our methods of teaching to a heterogenous studentship by reconceptualising traditional static methods (the 50-minute lecture). This inherently demands of us a self-reflection and empathic recognition of how our current teaching best serves students with the additional demands of increased self-management required to learn online, and the lure of becoming 'passive' or disconnected within a global climate of heightened anxiety and mental health vulnerability.

Best practice guidance for online courses recommends the repackaging of content to more discrete packages than we may be used to in typical face-to-face courses. One standard format includes videos of a suggested length of approximately 15 minutes (Berg et al., 2014) that are then able to be reviewed, and are ideally tied to formative or summative assessment opportunities. However, in many cases it may not be practical to redesign a lecture course to fit into these time limits as part of a temporary pivot. When reviewing how best to repackage more traditionally delivered content, consider the following:

- What content from a standard lecture can/should *only* be delivered by a lecture format?
- What content is foundational/background knowledge or revision that might be better shifted to self-paced pre-reading or other activities?
- What content might be better consolidated as post-lecture readings or extension materials, self-paced formative activities, low-stakes summative assessments, peer-to-peer small-group discussions, or facilitated seminars and Q & A sessions.
- For content that can and should only be presented in lecture-form, consider how best this may be broken-up to balance overwhelming students with numerous small recordings, sacrificing engagement with extremely lengthy recording, and/or making long recording inaccessible to students with streaming/bandwidth limitations.
- If visual content on slides is not used for active demonstrations in a recording, some students may benefit from copies of slides and the option of an audio-only recording to minimise cognitive and technological demands.

Rule 3: Provide synchronous and asynchronous contact and communication

Students should be given multiple avenues for synchronous and asynchronous contact with staff and peers, and the differing intended purpose of each mode of contact must be clear. The expectations of both staff and students regarding engagement and responsiveness across each platform must also be explicit. Developing and maintaining academic communities and relationships will be the greatest challenge of a temporary online pivot. Whilst lecture content should be provided asynchronously to allow flexibility, this does not preclude scheduling synchronous contact to provide students with:

- Open or scaffolded opportunities to seek support or clarification in regards to course materials or assessments.
- Consolidation of course content via peer- or tutor-mediated discussions.
- Social and academic networking opportunities.
- Development of collaborative skills during small-group activities.

For synchronous contact, it is important to enact as much control over your online space as possible and you should explore the security settings available on your streaming software to minimise disruption and consult with your learning technologist. There is an increasing awareness of the disruption that synchronous online events can face, (e.g., "Zoom bombing", Hodge, 2020), and the guidance and support on how to set up video conferencing to prevent this is rapidly expanding. Additionally, do not forget your local digital space when streaming. For example, when screen-sharing as part of a lecture, be mindful to shut down programs that may use pop-up messages and notifications such as Outlook, Slack, or Teams, and consider using an incognito private browsing window if sharing your browser to prevent your search history from appearing. *Where appropriate,* synchronous events should be recorded and made available to view at a later date to allow students to engage flexibly, particularly in recognition of time zone differences that may make live participation difficult. It is crucial that students are informed in advance which synchronous events will be recorded and shared, in much the same way that students are informed if live lecture capture is taking place on campus through appropriate signage and communication, so that they can make informed choices about their participation and e.g., whether to put on their video.

Asynchronous technologies provide opportunities for instructor-student and student-student time-delayed collaboration; the most commonly used asynchronous technologies in distance learning are discussion boards within the VLE and email to communicate in a text-based format (Russo & Campbell, 2004).

Asynchronous discussions using discussions boards in the VLE can have multiple threads with several discussions and interactions progressing simultaneously. Some students appear to prefer asynchronous communication in distance learning since, in addition to the flexibility afforded by the anytime-anywhere mode, this approach to communicating gives the learners time to reflect and respond. Being able to have the time to reflect can reduce apprehension in those individuals that are more likely to withhold their ideas from fear of others not approving (Gallupe et al,. 1992). Thus, text-based asynchronous interactions have been reported to facilitate academic discourse, socialisation and community building (Lord & Lomicka 2004) through thoughtful and extended engagements at the students' convenience (Thomas, 2002). However, asynchronous communication can pose issues for some learners, whereby time-delayed responses may result in messages appearing out of context and less meaningful, especially if a student has moved on to another topic or task (Russo & Campbell, 2004). They can also lack immediacy, which can limit some student's responses to other student's and instructor's comments (Childress & Braswell, 2006).

More recently, technologies like Slack and Microsoft Teams have sometimes inadvertently superseded VLE discussion boards in spite of their intention of having independent but parallel purposes. This may be a result of the familiarity, informality and accessibility of these newer app-based platforms, and we must be mindful of managing expectations and specifying the discrete nature of different platforms whilst simultaneously being mindful of just how many channels of communication we are asking students to use (Lieberman, 2019). These multiple methods of communication should be streamlined to as few as possible, each ideally having a single purpose, and both student and staff expectations regarding engagement and responsiveness for each should be managed and outlined clearly. It is encouraged that instructors take a balanced approach between maintaining an active role in managing conversations if required and allowing students to naturally guide some conversations themselves (see Salmon (2003) for in-depth resources on structuring and moderating online learning).

It is important to acknowledge that regardless of the specific platform, one of the challenges with text-based communication, especially if used in isolation, is a reduced form of social presence due to a lack of non-verbal cues, such as facial expressions and gestures (Leh, 2001). Although often preferred by some neurodivergent learners (Satterfield et al., 2015), this can result in reduced context and greater ambiguity as the reader cannot access the sender's emotions unless the sender explicitly expresses them. The presence of social cues, such as smiles and encouraging gestures has been seen to enhance learning (Hackman & Walker, 1990), and the absence of these can promote a less personal and friendly approach to distance

learning (Rice & Love 1987). However, studies have shown that a sense of presence can still be established in text-based communication through the use of emoticons as a replacement for non-verbal cues (Gunawardena & Zittel, 1997) and this is particularly true for neurodivergent individuals with social anxiety or communication-related challenges (Blundell-Roberts & Horlin, in prep.). Importantly, well-developed interpersonal relationships can be formed online through text-based communication (Walther & Burgoon, 1992), and online forums can foster a feeling of presence and create an online learning community (Edirisingha et al., 2009). It is also important to avoid the pitfalls of the 'digital natives' idea, there is no evidence that any one generation has better digital skills, or more ability to work in digital environments than any other (Bennet et al., 2008).

Rule 4: Set and communicate clear expectations about engagement

For many students, this will be the first time they have had to learn in a fully online environment and it is vital that your expectations for engagement are communicated clearly at the beginning of the course. For example, by when do you expect students to have viewed lecture content or completed the reading for each week (mindful of Rule 2)? How often they should expect to participate in synchronous events? What monitoring and progress checks are in place? These expectations will help provide students with a structure that allows them to form a routine and will also help the implementation of Rule 6 by setting clear criteria for successful engagement. You must also consider what you know of your cohort. There is evidence to suggest that veterinary students, when given pre-arrival materials online, remain anxious about workload and engage with materials mainly outside of normal working hours (Paterson et al, 2019). New entrants to university in 2020-2021 will have limited opportunity to assess their workload in comparison to their peers and need exceptionally clear instruction on how to spend their 'independent learning' time. In the UK, a full academic year is typically 120 credits, equivalent to approximately 1200 notional hours of learning, or 60 ECTS Credits (European Commission, 2015), at an appropriate difficulty level. As an academic year does not consist of 1200hours of structured learning time, the majority of this work will be independent learning and students will need support for how to work independently to develop their skills in those hours.

With regards to engagement with staff, while we need to support our students, online spaces can blur the private and public spheres and can lead to an "always on" culture where students develop unrealistic and unreasonable expectations. First, provide students with clarity about your availability including online office hours, how long they should expect to wait for an e-mail response, and alternative sources of support such as peer-led discussion forums or chat groups. Second, consider your broader online presence and digital footprint. Simple steps such as increasing the security settings on your personal social media

can help provide a distinction between the two spheres, however, for a deeper review, the University of Edinburgh have developed a Digital Footprint MOOC that provides advice and practical approaches for managing your online presence and digital footprint. Finally, allow and encourage control of the online spaces that students have. Provide them with resources such as the Digital Footprint MOOC noted above, security tips for your institution's video conferencing platform of choice, and existing resources from careers services and student support surrounding online professionalism. Much derisory commentary is written by academics about how students write emails. If you have expectations about the tone and style of online communication students should adopt, make these expectations explicit at the beginning of the semester rather than leaving students to fail and you to get frustrated.

Rule 5: Design appropriate assessments and communicate expectations clearly

It may be tempting during the pivot to consider that assessments can be simply put online with very little change to the format or guidance beyond that which is practically necessary. There is considerable evidence however that assessment, and importantly the associated feedback (Bloxham & Campbell, 2010; Carless, 2006), are important moderators of student behaviour (Hattie & Timperley, 2007), and help to build feelings of community and belonging with a students' chosen discipline (Lea & Street, 2006; MacKay et al., 2019). Socio-constructivist views of assessment and feedback consider feedback as a dialogic process, supporting the student to engage meaningfully with the quality of their work (Sadler, 2010), and the demands of their new field (Carless, 2015). In this framing, assessment is an important engagement point that **is** a learning experience in itself (Boud & Falchikov, 2006; Sadler, 1989) as opposed to something that is 'done to' learners or being used to evaluate the learning (Earl, 2013).

It is also important to recognise that any assessment on a pivoted course will likely be open-book, and so may need design principles rethought and any change in expectations clearly communicated. For open-book exams, even if the type of questions and broad structure of the exam remain the same as in previous years, the format allows for students to focus on displaying comprehension and evaluation (Vanderburgh, 2005, Williams & Wong, 2009) the marking criteria will require a shift in focus from the recall of facts to comprehension and evaluation and this should be made clear from the beginning of the course with appropriate guidance provided. For MCQs, you may wish to consider options such as negative marking, or questions with multiple correct options as well as taking advantage of VLE features such as the randomisation of response options.

However, the pivot also presents an opportunity for less traditional forms of assessment that are more suited to the open-book environment. As a generative alternative to MCQs, platforms such as PeerWise (Denny et al., 2008) allow students to create their own MCQs and answer their peers' submissions and can be graded based on participation or by the accuracy of their answers or quality of their questions. In lieu of essay exams, students could be presented with work with factual errors and asked to assess the errors and correct them, detailing what resources they used and why in recognition that academic literacy is a sign of successful engagement (Bloxham, 2012). At times it seems that many higher education practices such as closed-book exams and large didactic lectures have survived because of tradition rather than their pedagogical worth. Being unable to do things the way we have always done them presents us with the greatest challenge teaching and learning in higher education has collectively ever faced , however, it also presents us with an opportunity to take stock of what is important and create authentic assessments that test the skills we really value.

Rule 6: Monitor and support engagement

For the benefit of both their education and their well-being, students' engagement with the course, their peers, and their lecturers should be regular and sustained. Student engagement has been referred to as a 'meta-construct' which consolidates various aspects of student attainment and satisfaction (Fredricks et al., 2004). Engagement can be framed in terms of the students' behaviour (e.g., are they attending? Are they talking with friends in the lecture?), the psychological processes of learning that occur within the engaged state, and how engagement can indicate the students' assimilation into academic culture (Kahu, 2013).

Throughout all framings, engagement is considered an extremely important aspect of student learning (Cook-Sather et al., 2014) . Consider how you will monitor behavioural engagement (e.g., how much material students have engaged with) *and* psychological engagement (e.g., their new identities as online learners and how they are coping with the transition). Whilst being mindful of the need for extra flexibility, it is important not to confuse flexible learning with unsupervised learning. For asynchronous content, engagement can be monitored through learning analytics or by asking students to self-report through features such as Moodle Checklists or Blackboard Tasks. For synchronous contact, given the additional demands and time zone differences many students will be facing it would be inappropriate to penalise failure to attend, however, this does not mean that attendance should not be monitored and used to identify students who may be struggling.

Rule 7: Review the use and format of recorded content

Whilst the use of recordings from previous years may be appropriate, pivoted lectures may also need to be recorded anew to ensure suitability for online-only delivery. For example, there may be parts of the lecture that do not translate online (e.g., a discussion that isn't picked up by the mic), technical issues such as microphone failure that have not been previously noted, reference to an assessment that no longer exists, or the use of an off-camera tool like a chalkboard . These issues may be relatively minor, but the impact of such incongruencies will be exacerbated for new students who have not experienced a lecture first-hand or watching a lecture recording for the purpose for which it was intended - as a supplement to a live event. Additionally, to help develop and maintain community, the use of old recordings should be accompanied by introductory videos where the lecturer introduces themselves directly to the new cohort. These videos can be short, but they will help foster a connection between staff and students that risks being damaged if students are only provided with old content, particularly for new first year students. Last year's lectures may reduce workload compared to recording anew, however, they will still require time from learning technologists, if not necessarily from the lecturers themselves, and HE and FE providers need to consider this 'invisible' time burden.

It is also important to ensure that the decision to reuse lecture recordings is in line with any existing lecture capture policy. Many institutions that have an opt-out policy (Nordmann & McGeorge, 2018) explicitly require permission from the lecturer to reuse a recording beyond the year and the course that it was initially recorded for. Whilst this is a very different scenario than most policy makers will have had in mind, it is important not to undermine the integrity of lecture capture policy and so explicit permission should be sought (arguably, regardless of what policy exists).

Research on whether the visual presence of the instructor in instructional videos aids learning is mixed. Fiorella and Mayer (2018) suggest that it does not greatly impact learning, as do Kizilcec et al. (2015), however, the latter also conclude that although social cues may not enhance learning per se, they may affect learners' motivation to persist in a course. It is important to remember that the COVID-19 cohort will not have chosen to learn through video and so any social impact is likely to be greater, therefore we advise that, when possible, the instructor should be visible in recorded content. Even a still image of the lecturer can help give students a strong sense of community (see Rule 9), and may be a more reasonable change to make to content that may already exist

On a more practical note, fully-online programmes expend a great deal of time and effort to ensure that video output is high quality and that disfluencies etc. are edited out of the final output whilst video output during emergency remote teaching may have been by any means necessary by teachers still getting

to grips with new technologies. Whilst lecturers may wish to top-and-tail their videos to avoid any deadtime or lecture set-up from being captured, there should be no expectation that the video output for a temporary online pivot will be the same quality as the content of an online programme. This is not to fantasise that an online pivot will not take a great deal of work – it will - but rather to emphasise that efforts should be focused on building community and engagement rather than video editing.

Rule 8: Focus on achievable learning outcomes for online field, clinical & laboratory work

Disciplines that have a large practical component, often stipulated by professional and accrediting bodies (IOP, 2011; RCVS, 2014; RSC, 2015) require additional thought in moving online, especially for a temporary period. This includes field, clinical and laboratory work, which would normally occur in highly specialised and structured environments. While online laboratories cannot replace the tangible aspects that are gained in person, there is substantial literature on the value of online laboratories for a range of learning outcomes (Brinson, 2015), and lessons can be learned from institutions such as the Open University which teach practical science remotely and have made help sheets available to the wider education community (Open University, 2020). It is useful to structure the overall activity on aspects relating to experimental planning, decision making, and reviewing real data – key attributes in typical professional accreditation activities and benchmark statements. In fact these are activities that often do not appear in traditional laboratory instruction (Hofstein & Lunetta, 2004) and there is ongoing criticism of poor learning in laboratory environments (DeKorver & Towns, 2015, 2016). Therefore, there is an advantage in including activities relating to experimental design and argumentation of data that are known to improve student outcomes in laboratory work (Sampson et al., 2011) in an online context, as they are beneficial activities that do not actually require physical laboratory work. This approach can be augmented by simulations (Woodfield et al., 2005), virtual labs (Dunnagan et al., 2019; Reece & Butler, 2017), or videos (Seery et al., 2017, Perron et al 2011) that develop students' understanding of technical processes relating to laboratory techniques so that the combination of laboratory technique and laboratory process provides an effective overall experience. Many of the strategies for teaching practical skills are also relevant in online environments, such as creating a 'stress-free' safe learning environment, and breaking the skill down into manageable, observable steps (Crowther et al., 2014).

As with many aspects of (online) teaching, an especially important consideration is that of the instructor, as their influence heavily impacts the students' affective experience of the online laboratory class (Hensen & Barbera, 2019), indicating that careful thought is needed in planning student support of online

practical activities. Further, these practical skills most often rely on the student integrating feedback from peers and tutors with their own practice (Rhind et al., 2020) and even if translated online we should expect them to require a great deal of staff time. Where possible, it may be more feasible to delay practical work to the start of 2021, 'front loading' degrees with theory, although this has the potential to 'silo' learning and make the integration of knowledge and skills harder. This strategy may not be viable for longer, open-ended projects such as research projects, especially if the second half of the academic year will feature more in-class activities than is typical. Any dissertation supervisor will be aware of the pitfalls of starting a dissertation project too late in the year. Practical activities on more open-ended topics, such as undergraduate research projects, could draw on citizen science initiatives for data sourcing and analysis (Motion, 2020) and accrediting bodies such as the British Psychological Society already allow for secondary data analysis and computational modelling for their empirical practical component (BPS, 2019, 2020). In the longer term, there is benefit from considering how the use of online materials developed for an immediate pivot can be of value. There is a substantial literature in the use of simulations, videos, and other resources that allow students to prepare in advance for laboratory work (Agustian & Seery, 2017), and thus while preparing materials for a short term pivot, consideration for their longer term value is worthwhile.

Rule 9: Ensure that course content is available, accessible, and signposted

Whilst much of the focus will be on pivoting lectures and labs online, it is important not to forget about associated content. For example, ensure that material included on reading lists does not require physical access to the library. This may require the temporary use of less favoured alternative material, however, it is small details that are likely to make a difference to student engagement and retention and reading lists that contain material they cannot access will likely create a negative impression that may be difficult to overcome when "normal" service resumes. Many publishers have made textbooks and additional online resources available for free (see Jisc (2020a) for a maintained list of resources) to allow students access to study materials during COVID-19 disruption. How long this will continue is unknown but publishing reps should be consulted to determine whether there are resources available to help support the pivot. Equally, academics should work with librarians who can provide support to identify online resources and suitable alternatives. Care needs to be taken when posting material online to ensure compliance with copyright law. Jisc provides a number of resources regarding digital copyright (Jisc, 2015) and again, consultation with your institution's librarians can provide support in how to interpret copyright and fair use policies.

Alongside the provision of textbooks and papers, associated content such as powerpoint slides to accompany lecture recordings should not be forgotten; these can help students structure notes without losing the message of the material being presented (Biggs, 2003). Many institutions will already have an accessibility-related policy of ensuring lecture slides are available in advance, in line with guidance from Jisc (Jisc, 2018), however, adherence to these policies can sometimes be patchy and it is crucial that efforts are made to ensure compliance across all teaching. The most recent digital accessibility guidelines must also be taken into consideration (Jisc, 2020b). Whilst much work has already been done on ensuring the accessibility of existing online learning materials, it is vitally important that any new material follows these guidelines otherwise the pivot risks alienating and further disadvantaging disabled students. For example, for blind and visually impaired students, digital documents must be able to be read by a screen reader and videos may need audio-description to be accessible. For deaf and hard-of-hearing students, video content will need captions and consideration should be given to synchronous online events such as whether an interpreter may be necessary.

Methodical organisation of space and signposting of resources will be paramount to reduce confusion and anxiety, particularly for new students yet to experience the VLE. Learning technologists will be of primary importance in providing support and academics and administrative staff should work with learning technologists throughout all stages of the planning process. Short navigation videos will help to provide clear guidance and increase student confidence in finding their way around in addition to platforms such as Microsoft Teams which have the capacity to create classroom notebooks/classroom materials folders. It is likely that a variety of platforms for communication and content will be used therefore it will be vital that clear signposting is used at the beginning of term to advise students what platforms will be utilised. Additionally clear guidance must be provided on how to access/use these: failure to do so will risk student engagement. The QAA Enhancement Themes Technology Enhanced Learning hub has a series of resources on supporting students during this time including guidance on using VLEs. Whilst the process of finding alternative, accessible materials and providing additional guidance via short video capture seems yet another pressure during a challenging time, this is an opportunity to future proof courses and reassess the materials currently used with a view to their utility and accessibility. Incorporating these changes now will certainly have costs in terms of time but may produce benefits for both staff and students not only during this temporary pivot but in the longer term.

Rule 10: Create a community for staff and students

The success of the online pivot will not be determined by the quality of video content, but by the strength of the community that emerges from the other side. Online communities can be very strong, particularly

in education. The so-called 'campus imaginary' can be a powerful draw for the distance learning student, where they feel part of a community that may not be entirely reflective of the on-campus experience (Ross & Sheail, 2017). Even classes of a thousand students can feel strongly bonded to lecturers with simple techniques such as welcome videos and question and answer sessions, especially when this comes at a difficult period in the student's life (MacKay et al., 2018). It is likely that there will need to be increased communication such as daily updates, particularly at the beginning of term. Even if there is no new information to be conveyed, until students (and staff) adapt to the pivot, consistent and transparent communication will be vital.

For many students entering first year in a Pivoted environment, they will have missed the big social events that mark their transition into a new life stage, e.g. prom, final year dance. They will be entering university without a traditional freshers' week, or a freshers' week that at the very least will carry new anxieties about a crowded room. These students are more likely to feel vulnerable and unhappy that their university experience is not the one they were looking forward to or the one that their older friends and siblings experienced. These students will also be likely experiencing university during an economic downturn and will have greater anxieties. Students transitioning into an honours year or a practical course year will feel short-changed, as did students who missed out on fieldwork opportunities during Foot and Mouth (Fuller et al, 2003). These disappointments will also need to be monitored and supported. With students in such a vulnerable state, and community so important, we should again strongly question the need for teaching quality assessments in this period. For example, the NSS is criticised for having vague questions (Bennet & Kane, 2014), and asking students about their learning community in this time period is unlikely to lead to usable information.

Finally, all institutions need to consider the costs and benefits of introducing mixed cohorts where some students attend on-campus and other students attend online. The on-campus experience will be strongly defined by the strength of social-distancing measures, which may impact timetabling such as running multiple lectures to accommodate class sizes. It may also be difficult to ensure equity of experience for online students, who will include international students and students with underlying health conditions. A blended model will also impact on staff time, with each piece of content necessitating being delivered twice. Even if, as discussed above, lectures are re-used, the contact time must be spread across two cohorts. The increased cost of staff time, and the impact on class community, may make blended models a challenge to successfully implement.

Conclusion

No guidance can answer all the questions that will face each institution and programme leader over the coming months and there will be many case-by-case decisions to be made, some of which will have no right answer. However, we hope that this paper provides a framework and some guiding principles upon which to base discussions that have community and inclusivity at their core. To co-opt Maya Angelou, students will forget what software we used, they will forget the mistakes we made in a time of crisis, but they will never forget how we made them feel.

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